



## Wangs Semisolid Medium

M918

Wangs Semisolid Medium is used for transport and storage of *Campylobacter* species from foods.

### Composition\*\*

Ingredients	Gms / Litre
Casein enzymic hydrolysate	10.000
Peptic digest of animal tissue	10.000
Dextrose	1.000
Yeast extract	2.000
Sodium chloride	5.000
Sodium bisulphite	0.100
Agar	5.000
Final pH ( at 25°C)	7.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Suspend 33.1 grams in 900 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add 100 ml sterile defibrinated sheep blood. Mix well and dispense aseptically in tubes as desired. Allow the tubes to cool in an upright position.

### Principle And Interpretation

Despite improved techniques, isolation of *Campylobacter* species from foods may still be difficult because of delays in culturing specimens. Therefore methods that maintain the viability of *Campylobacter* during transport and storage of specimens are important, especially for specimens that are collected far away from the processing laboratories.

The primary objective of a transport medium is to maintain the clinical sample as near to their original state as possible with minimum deterioration and to minimize hazards to specimen handlers. This is achieved by using tightly fitting collection devices confined within proper protective containers (1). Wangs Medium is an enriched, semisolid medium as recommended by APHA (2) and described by Wang (3). It is used for the transport and storage of cultures of *Campylobacter* species from food such as undercooked meat, poultry, unpasteurised milk, bile and water (3). Wangs Semisolid Medium can be used for maintenance of *Campylobacter* species.

The medium contains casein enzymic hydrolysate and peptic digest of animal tissue, which serve as source of nitrogen. Yeast extract provides additional nutritious growth factors. Dextrose is a source of carbon. Sodium bisulphite accelerates growth of organisms. Sodium chloride maintains the osmotic balance. Addition of 0.5% agar makes the medium semisolid for maintaining viability of cultures for transport and storage by providing a semisolid consistency to prevent oxygenation and spillage during transport (1). Addition of 5-10% defibrinated horse blood provides additional source of nutrition for growth.

### Quality Control

#### Appearance

Cream to yellow homogeneous free flowing powder

#### Gelling

Semisolid, comparable with 0.5% Agar gel forms in tubes as butt.

#### Colour and Clarity of prepared medium

Medium amber coloured clear solution without any precipitate.

#### Reaction

Reaction of 3.31% w/v aqueous solution at 25°C. pH : 7.0±0.2

#### pH

6.80-7.20

#### Cultural Response

M918: Cultural characteristics observed after an incubation at 35-37°C for 5 days with added sterile defibrinated sheep blood. Growth observed upon subculturing on Campylobacter Agar Base (M994).

<b>Organism</b>	<b>Growth</b>
<i>Campylobacter jejuni</i> ATCC 29428	luxuriant

### Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label

### Reference

1. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippincott Company
2. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
3. Wang W. L. L., Luechtefeld N. W., Reller L. B., and Blaser M. J., 1980, J. Clin. Microbiol., 12:479-480.

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